NAVSEA
STANDARD ITEM

FY-00

ITEM NO: 009-16
DATE: 06 NOV 1998
CATEGORY: II

1. SCOPE:

1.1 Title: Electronic Equipment; repair

2. REFERENCES:

a. Equipment Technical Manual

b. 407-5291780, Standard Electromagnetic Interferences (EMI) Survey Procedures

c. SE000-00-EIM-160, Electronic Installation and Maintenance Book, General Maintenance

d. 0967-LP-000-0110, Electronic Installation and Maintenance Book, Installation Standards

e. S9300-A6-GYD-010, Electrical Workmanship Inspection Guide for Surface Ships and Submarines

f. MIL-STD-1680 (CONFIDENTIAL), Installation Criteria for Shipboard Secure Electrical Information Processing Systems

g. MIL-STD-1310, Shipboard Bonding, Grounding, and Other Techniques for Electromagnetic Compatibility and Safety

3. REQUIREMENTS:

3.1 Disassemble equipment for cleaning, inspection, and repair, using 2.a for guidance.

(V) "***VISUALLY*** INSPECT"

3.1.1 Visually inspect components prior to cleaning to detect evidence of casualties and deteriorating conditions that may not be apparent after cleaning.

3.1.2 Clean equipment and remove foreign matter.

3.1.3 Dry equipment, removing moisture and cleaning solvents.

3.1.4 Inspect equipment for applicable electromagnetic interference (EMI) fixes using Shipboard Electromagnetic Compatibility Improvement Program (SEMCIP) Technical Assist Network (STAN) in accordance with 2.b.

3.1.4.1 Submit four legible copies of a report listing the applicable EMI fixes not installed and EMI fixes that have been improperly installed, to the SUPERVISOR

(V) "INSPECT ***AND TEST TO DESIGN CHARACTERISTICS*** "

3.2 Inspect and test electrical and mechanical components, assemblies, subassemblies, ***equipment enclosures***, internal circuitry, and enclosure hardware to design characteristics and determine missing and defective components, circuitry, and enclosure hardware in accordance with 2.a.

3.2.1 Remove defective and install new electrical and mechanical components, assemblies, subassemblies, internal circuitry, and enclosure hardware. Install new electrical and mechanical components, assemblies, subassemblies, internal circuitry, and enclosure hardware where missing. New material shall conform to the requirements of 2.a.

3.2.1.1 Soldering, desoldering, and removal of components and circuitry shall be in accordance with Section 4 of 2.c.

3.2.1.2 Miniature and microminiature repair of printed circuit boards shall be in accordance with Sections 5 and 6 of 2.c.

3.2.1.3 New wiring shall conform to MIL-W-16878. Wire size and color code shall be in accordance with 2.a. Individual wires in harnesses and chassis wiring may be plain white conductors with sleeve identification markers at each end, stenciled to indicate color coding.

(V) "INSPECT ***SHIELDING TERMINATIONS***"

3.3 Inspect braided wire shielding terminations for conformance to Paragraph 2-19.3 of 2.d.

3.3.1 Remove defective and install new grounding sheath connectors. Install new grounding sheath connectors where missing. Installation shall be in accordance with Paragraph 2-14 of 2.d.

(V) "INSPECT ***WIRE CONNECTIONS***"

3.4 Inspect terminal board wire connections for termination with lugs conforming to MIL-T-7928 of each conductor at the terminal board connections.

3.4.1 Remove defective and install new lugs, using 2.e for accept or reject criteria. Install new lugs where missing. New lugs shall conform to MIL-T-7928.

(V) "INSPECT ***WIRE MARKERS***"

3.5 Inspect for missing and defective wire markers.

3.5.1 Remove defective and install new wire markers, using 2.e for accept or reject criteria. Install new wire markers where missing. New wire markers shall conform to MIL-I-23053, Class One, white, marked with indelible ink.

3.5.1.1 Sleeving shall be marked in accordance with 2.a.

3.6 Correct discrepancies found in terminal board connections in accordance with 2.a and as modified by applicable field changes.

(V) "INSPECT ***FOR SLACK***"

3.7 Inspect existing cabling and cable harnesses between hinged parts and between chassis and parts which are subject to removal for slack to prevent breaking of individual wires by repeated flexing and for chafing protection.

3.7.1 Provide slack in accordance with Paragraph 2-15 of 2.d to prevent breaking of individual wires.

3.7.2 Install new chafing protection in accordance with Paragraph 2-15 of 2.d.

3.8 Retie loose harness lacing in accordance with Paragraph 2-15.2 of 2.d.

3.9 Secure loose wiring harness clamps and ***install new plastic clamps where found to be missing or defective*** in accordance with Paragraph 2-15.3 of 2.d.

3.10 Adjust relays and burnish contacts in exposed type relays and switches.

3.11 Stone each pinion and gear tooth to remove high spots.

3.12 Adjust and align mechanical components in accordance with 2.a.

3.13 Assemble equipment using 2.a for guidance.

3.13.1 Tighten loose controls and hardware. Free-up binding in moving parts, controls, switches, chassis slides, and runners.

3.13.2 Lubricate equipment in accordance with 2.a.

3.13.3 Install heat dissipating tube shields conforming to MIL-S-24251.

3.14 Bond and ground equipment in accordance with 2.f and 2.g.

3.14.1 Install ground straps on each door on controllers with door-mounted energized components in accordance with MIL-E-2036, for those found to be missing or defective.

3.15 Energize the equipment; calibrate, align, and adjust to achieve optimum operational characteristics in accordance with 2.a.

3.16 Update field change accomplished plate to indicate completed field changes when the Work Item directs the installation of new field changes.

4. NOTES:

4.1 Equipment technical manual will be provided by the invoking Work Item.